b.) Amendments to the Specification

Please amend the specification as follows (page and line numbers refer to the enclosed English language version of the application):

- At page 1, line 3, please insert:

-- Field of the Invention --

- At page 1, line 7, please insert:

-- Description of the Background --

- At page 4, line 17, please insert:

-- Summary of the Invention

The present invention provides, generally, processes for generating or increasing resistance of plants to at least one pathogen with a protein containing a sucrose isomerase activity.

One embodiment of the invention is directed to methods for generating or increasing resistance of a plant to at least one pathogen comprising: transforming a collection of plant cells with a transgenic protein that possesses a sucrose isomerase activity; and selecting a plant cell from the transformed collection that generates or shows increased resistance, as compared to the untransformed plant cell, to the at least one pathogen. Preferably the sucrose isomerase activity is derived from: i) a protein containing the sequence of SEQ ID NO: 2, 6, 8, 10, 12, 14, 16, 18 or 36; ii) a functional equivalent to said protein; or iii) a fragment of said protein or said functional equivalent. Preferably the expression of the sucrose isomerase activity is ensured by a transgenic expression cassette comprising at least one nucleic acid sequence selected from the group consisting of: a) nucleic acid sequences encoding the amino acid sequence of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22 or 36; b) nucleic acid sequences encoding proteins with at least 40% homology with the sequence of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22 or 36; c) nucleic acid sequences that contain the sequence of SEQ ID No: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 or 35; d) nucleic acid sequences which is

degenerated to a nucleic acid sequence of c); e) nucleic acid sequences with at least 40% homology with the nucleic acid sequence of SEQ ID No: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 or 35; and f) nucleic acid sequences that hybridize with a complementary strand of the nucleic acid sequence of SEQ ID No: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21 or 35.

Preferably the sucrose isomerase activity is expressed under the control of a pathogen-inducible promoter which is functional in plants. Preferably the pathogen is selected from the group consisting of fungi and nematodes, and also preferably, the fungi is selected from the group consisting of Plasmodiophoramycota, Oomycota, Ascomycota, Chytridiomycetes, Zygomycetes, Basidiomycota and Deuteromycetes. Plants such as potato, beet, sugar beet, tomato, banana, carrot, sugar cane, strawberry, pineapple, paw paw, soybean, oats, barley, wheat, rye, tricicale, sorghum and millet, and maize, are often the preferred plants.

Another embodiment of the invention is directed to transgenic expression cassettes comprising nucleic acid sequences that encode a sucrose isomerase, which is in functional linkage with a pathogen-inducible promoter that is functional in plants. Preferably the sucrose isomerase is a protein containing the sequence of SEQ ID NO: 2, 6, 8, 10, 12, 14, 16, 18 or 36; a functional equivalent of said protein; or a fragment of said protein or said functional equivalent. Also preferably, the pathogen-inducible promoter contains a sequence selected from the group consisting of the sequences of SEQ ID NO: 23, 24, 32, 33 and 34.

Another embodiment of the invention is directed to transgenic expression vectors comprising the transgenic expression cassette of the invention.

Another embodiment of the invention is directed to transgenic organisms comprising the transgenic expression cassettes of the invention. Preferably, the transgenic organism is a plant selected from the group consisting of potato, beet, sugar beet, tomato, banana, carrot, sugar cane, strawberry, pineapple, paw paw, soybean, oats, barley, wheat, rye, tricicale, sorghum and millet, and maize.

Another embodiment of the invention is directed to a transgenic crop product, propagation material, cells, organs, parts, calli, cell cultures, seeds, tubers, sets or transgenic progeny of the transgenic organism of the invention.

Another embodiment of the invention is directed to methods for the production of palatinose comprising the transgenic organism or the transgenic expression vectors of the invention. Preferably, methods for the production of palatinose comprises transgenic crop products, propagation material, cells, organs, parts, calli, cell cultures, seeds, tubers, sets or transgenic progeny of the invention.

Another embodiment of the invention is directed to methods for increasing resistance of a plant to at least one pathogen comprising expressing a transgenic protein in said plant, wherein the transgenic protein possesses a sucrose isomerase activity that provides increased resistance, as compared to an unexpressing plant, to the at least one pathogen. Preferably, the transgenic protein is a protein containing the sequence of SEQ ID NO: 2, 6, 8, 10, 12, 14, 16, 18 or 36; is a functional equivalent of said protein; or is a fragment of said protein or said functional equivalent.

Other embodiments and advantages of the invention are set forth in part in the description, which follows, and in part, may be obvious from this description, or may be learned from the practice of the invention.

Description of the Drawings

Figure 1. Schematic representation of the expression cassette in the plasmid p35S-cwIso.

Figure 2. Schematic representation of the expression cassette in the plasmid pB33-cwIso.

Figure 3. Western blot analysis of pall-expressing potato tubers of various transgenic lines.

Figure 4. HPLC analysis of the soluble carbohydrates in sucrose-isomerase-expressing plants.

Figure 5. Palatinose, sucrose, glucose and starch content in wild-type potato tubers (wt) and in potato tubers from various transgenic lines (3 to 37), which express the chimeric pall gene in the cell wall.

Figure 6. Infection of potato tubers with *Alternaria solani*. Potato disks from wild-type tubers and tubers of the pall-expressing transgenic lines 5 and 33 14 days post-infection with *Alternaria solani*.

Figure 7. Schematic representation of the expression cassette in the plasmid pLemmi9-cwIso.

Figure 8. Schematic representation of the expression cassette in the plasmid p□0.3TobRB7-cwIso.

Description of the Invention --

- At page 58, line 33 please insert:

-- Other embodiments and advantages of the invention are set forth in part in the description, which follows, and in part, may be obvious from this description, or may be learned from the practice of the invention. All references cited herein, including all U.S. and foreign patents and patent applications, and all publications or other documentary materials, are specifically and entirely hereby incorporated herein by reference. It is intended that the specification and examples be considered exemplary only. --